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AUTHOR Hernandez-Domingues, Jose L.; Gertenbach, Donald
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ABSTRACT

This paper discusses (1) The Current Definition of Bilingual Education, (2) The Origin of Accountability, (3) The Empirical and Rational View of Education, (4) Man Defines Himself or Is Defined, and (5) Who Is Accountable? A list of notes is included in the study. (SK)

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# BILINGUAL EDUCATION AND ACCOUNTABILITY: A PERCEPTUAL VIEW

BY:

Jose L. Hernandez-Dominguez*
Education Program Specialist
Bilingual Education
U.S. Office of Education
Washington, D.C.

and

Donald Cortenbach, Ed.D.
Associate Professor
Millersville State College
Millersville, Pennsylvania

FL 003 785

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The Current Definition of Bilingual Education

Bilingual education is not new to the educational world. Many countries have had bilingual education for centuries. This country had bilingual schools until the beginning of the twentieth century where a reversal to English-only policy stopped the use of other languages for instructional purposes.[1,2] What may be new is a working definition of bilingual education in view of recent educational and socio-economic changes.

There are many possible definitions of bilingual education[3] but the only that has mattered in the past several years is that used by the Bilingual Education Programs Branch, U.S. Office of Education. This is because the money specifically appropriated to support bilingual education programs flows from that source. As Congress approved legislation for the support of bilingual education programs,[4] it never attempted to define bilingual education, however, the action of Congress opened the way for educators to begin the task of structuring bilingual education programs in its new role and realities. Within the Regulations of the Bilingual Program, bilingual education has been defined as the use of two languages, one of which is English, as medium of instruction. At the time of the Bilingual Education Act (BEA) no one knew what models worked for improving the educational achievement of children whose dominant language was other than English. How a bilingual program had to be organized considering the different ethnic and language groups,

national origins, regions and individual communities, was unknown. Some educators planned bilingual programs with heavy emphasis in English as a Second Language (ESL), others with heavy emphasis in the teaching of and through the child's dominant language. Some programs were organized at the lower grades (K-2) and others at higher grades (3-9). Some programs mixed children linguistically and others provided differentiated classes according to language dominance. The only known factors were that bilingual education depended almost exclusively on federal financial support and embraced the concept of "accountability."

The Origin of Accountability

As the bilingual education program began, the accountability concept was attached to it. Other discretionary programs, Drop-Out Prevention, Title VIII, E.S.E.A., and Supplementary Educational Centers, Title III, E.S.E.A., were also included in this experimental and controversial concept. Accountability was applied to all areas the bilingual education program required in its administrative guidelines.[5] These areas included: (1) Instruction, (2) Staff Development, (3) Material Development an d (4) Community Involvement. Each component had to be measured in both process and product.

Some terms used within the context of accountability, however, need further clarification if the current usage of the concept of accountability is to be fully understood. The term "teaching" and

"learning", for example, have a far different meaning in today's language of accountability usage than they had in the past. Those who study education know that there are several different models of the teaching-learning process available and choosing one model for use over another involves the selector with more basic values such as the relative worth of various subject-matter, the question of freedom and determinism, and, of course, how we define learning itself. To adopt a teaching-learning model, then, is no small step for a teacher because it involves the teacher in some basic value definiations and choices which in turn make themselves felt as the emergent values in the classroom.

The question can be raised, however, if teachers and even administrators understand the value assumptions behind the current usage of the concept of accountability. A close examination of the current usage reveals certain assumptions which can be generalized as (1) cognitive knowledge is more valuable than affective knowing, (2) the important variables in the learning situation are external to the child and can be controlled and (3) environment exerts a strong control on the learner, meaning that he is only as free as the teacher desires to make him. The above three are clear implications present in the current usage of accountability. If cognitive knowledge as the mastery of subject-matter is stressed as the accountable factor then certainly the behavior rather than the perceptual view of the teaching-learning situation has been

taken. If the teacher is to be held morally accountable there must be (1) something that can be easily measured for which she can be held accountable if the student fails to learn, and more important, (2) it must be assumed that the important variables in learning are indeed under the control of the teacher.

The second point is indeed vital. Morally (or even legally) one cannot be held responsible for an outcome if his control over the process that led to the outcome cannot be established as a fact. It would be illogical and morally wrong to assume that a teacher should be held responsible for the failure of her pupil to learn unless it is first established that it is both possible and valid for her to exert the control that makes learning possible. If the teacher is in fact to be held responsible for learning then a particular definition of learning is needed which specifies both process and product in terms of (1) definable and measurable objectives of a behavioral nature which will be reached through (2) teacher control of the external variables in the learning process. There is serious disagreement among learning theorist, however, if the above model of the learning process is germane to the problem of education.

Empirical and Rational View

A problem that has bothered men for ages is still with us today and is specially relevant to a discussion of accountability in education. This has to do with the relative worth of knowledge

that has been derived through empirical methods as opposed to knowledge that comes into being through rational means. The problem had its first major definition when Hume in the eighteenth century criticised the whole stream of rationalism that had influenced all of man's activities including science since Plato. The old arguments of the empiricist and the rationalists about the relative value of each method in seeking knowledge appear in the natural sciences at least to have been resolved.

In speaking about the relative importance of empiricism and rationalism in natural sciences, Bernard Williams says that

> The rationalists tradition certainly embodied fundamental insights (lacking in empiricism) about the nature of science; above all, it saw the importance of mathematical structures in physical explanation and the vital possibility of a theory's making a conceptual jump beyond the observations and not merely (as in empiricism) an advance in generality. Its sense of the activity of the scientific mind, of its restructuring of observations through concepts and models, was very significant.[6]

Williams end by quoting another observer, Giogio de Santillana, who said, "the true scientist has an empiricist conscience and a rationalist imagination."[7] Thus the idea has been accepted that in the natural sciences rationalism as a way of seeking knowledge has its place.

The insufficiency of empiricism to operate alone in knowledge-seeking can be established by examination of two issues, one logical and the other psychological. The logical concerns the

question of:

> ...whether highly general concepts, such as those used in mathematics and sciences, are reducible to or analyzable into those sorts of empirical concepts which can be plausibly be said to be derived from sense perception. [8]

This issue has been formulated in the natural sciences as the problem of "theoretical reduction" in which concepts from physics and chemistry, for example, might be used to explain functions in living organism which may have processes quite different in certain fundamental respects from complex physio-chemical systems. [9] In other words, the living organism although having some physio-chemical properties which cannot be analyzed, understood, or synthesized through purely empirical operations in chemistry. By treating life processes chemically and ignoring biology the explainer has thus "reduced" complexities for the sake of explanation.

In psychological explanation the issue is whether "concept" learning, for example, can be adequately explained by an empirical psychological model postulating only therelationship between a stimulus and a response as the important factor in learning. A more adequate model may require the stipulation of innate (not environmental) constraints on the nature of generalization that occurs from one learning task to another. [10]

On these bases alone it can be seen that empiricism should not be the sole foundation for educational theory in general and learning theory in particular, no more than the scientists consider

pure empiricism the only tool for operation in the natural sciences. Some psychologists who do seem to exert an influence over educators, however, lean heavily toward empiricism to explain what happens in learning, development and motivation. Operating empirically they tend to emphasize as important what they can observe and control and this has usually meant investigation of the effects of environment on the three processes mentioned. This is true because control of the environment is possible under laboratory conditions and provides a "neat" method of construct development.

This type of empiricism is known to students of psychology as behaviorism. Behaviorism is not only a type of descriptive empiricism but it is something more. As a theory it is based on the work of John Watson, an American psychologist who worked in the first third of the twentieth century. Watson attempted to define man in terms of the behavior man exhibited as a reaction to external forces or impressions.[11] Subsequently Watson's theories have been modified by others as the result of further studies of behavior. All of the further studies, however, seem to have the common characteristic of the mechanistic explanation of how and why man acts and to concentrate on the observable manifestations of stimulus and response to define what man is. The forces studied are external to man and man is viewed as a product of those forces. View learning from this perspective and it is another form of behavior which can be influenced through external control of environmental variables.

The other major division of psychology called the Gestalt or cognitive-field branch defines learning differently. Through experiments some psychologists accepted the view that learning comes essentially through insight or through the reorganization of the perceptual field of the learner and not through a conditioned response to a stimulus. In other words they felt that there were internal factors within the learner which accounted for learning and that these internal factors could not be controlled in the neat way that the behaviorists control environmental factors to engender learning. If one follows this model of learning it is perhaps obvious that control of the learning process is more difficult because one must now consider as variables factors such as perception and personality which cannot be subjected to direct environmental control. In this view of learning, in fact, man may succeed to learn not because of the environment, but in spite of it. Internal forces can and do free him from environmental constraints.

Man Defines Himself or is Defined

"...man has never been in a better position to build a healthy, happy and productive world." B.F. Skinner made this statement in his 1953 book, Science and Human Behavior.[12] Skinner, however, considers that man has failed and will continue to fail in this attempt. He argues that the methods of science should be applied to human endeavors in order to determine what man does as the

result of specific conditions and once these conditions have been discovered man's actions can be anticipated and somewhat controlled." [13] Skinner notes that Western intellectual tradition has long regarded man as a free agent whose changes of behavior are the result not of specific causal conditions but of "spontaneous inner changes of course." [14] Although Skinner pay lip service to this view as a "stimulating and productive conception of human nature" [15] he argues that similar beliefs of a national nature have conflicted with empirical evidence and have produced a situation in which a conflict of values has been inevitable. In such a situation he argues that since no one can really disprove the metaphysical assumptions of others there is no real progress in man's improvement. He believes that this is because we have continued to look "inside" man for answers to questions of behavior when we really should look "outside" into man's environment for the answers. To Skinner the only solution is to determine what stimuli in what order and intensity induce what response and to then subject man only to those stimuli which will engender the action desired.

In Skinner's view man obviously does not define himself, but is defined by the forces of his environment that continually act upon him. Environment is thus seen as an absolute and that, presumedly, the same environmental forces will have the same effects on all people because we are all more alike in our response than we are different; we will all bend in similar ways if we are subjected early

enough to the same stimuli and properly conditioned. The environment is an absolute and acts absolutely on individuals. There is nothing in individuals themselves that order, sorts out, or otherwise mitigates this absolute effect.

There is, however, another view of man sometimes taken psychologically that is more in line with the tradition of rationalism which Skinner believes has not been valuable to man. This is the perceptual view of behavior in which it is theorized that man acts not in reaction to an absolute environment but acts in relation to his view of that environment. Donald Snygg and Arthur Combs have advanced the idea that people behave according to how things seem to them and not according to how things are. Thus the environment is not the key factor but how we perceive that environment that ultimately influences our behavior. This removes the absolute power from the stimulus as a motivator and makes the perceptual field of the individual (which is obviously much harder to define, predict and control than the stimulus) the deciding factor. The perceptual field obviously must include human feelings, attitudes, and beliefs which can be operationally defined in psychology but are difficult to otherwise quantify. Perception may also be a factor of biological or chemical functions.

In investigating the perceptual field of the individual as a factor in learning it is apparent that the type of scientific theory reduction to explain behavior advocated by Skinner cannot take place.

In the perceptual view that one sees in the environment is the controlling factor in learning. Thus the question of the influence of environment becomes a relative one. A great many more variables are introduced into understanding why man acts as he does. In effect Snygg and Combs have expanded the possibilities and the variables while Skinner has reduced them. In fact, multiplicity has been reduced by Skinner to unity. In this philosophy of science this tendency by the theorist to narrow his field of view and concentrate on a few causal factors has been previously discussed as "concept reduction".[16] In narrowing the field Skinner has said, in effect, that human behavior may be predicted and controlled in terms of environmental stimulus and response.

Skinner is an empirical scientist who believes that only the quantifiable is real in the sense than only empiricism can give us knowledge of the learning process. This is because he feels that the only part of the learning process we can control is the environment and the only thing we can observe is behavior. What may go on inside the person, he argues, we cannot control and it is therefore not a proper subject for the scientific study of learning. The key word here, of course, is "scientific" because it assumes that the only proper way to study learning is through the method of empiricism. In Skinner's view anything that cannot be studied empirically (such as the nature of perception and its influence on learning) must wait until our methods of investigation have become sophisticated enough

so that it can be studied empirically, if this will ever be possible at all.

Hence is illustrated in learning theory the tendency of the empiricist to "explain away" certain facts that cannot be explained or controlled to the degree of certainty acceptable to the empirical scientist. Skinner is very specific about accepting only empirically verified evidence in constructing learning theory. When questioned about those psychologists who believe that what goes on inside the person may affect his perception of a situation and thus may affect his actions and learning, Skinner says:

> ...I don't feel that one should answer the most difficult question in a science first. People study perception because they're intrigued by perceptual phenomena. The Gestalt psychologists have been studying intriguing visual illusions for more than fifty years.... There are subtleties in perceptual phenomena which will have to wait to be explained when our analytical machinery has become more powerful... I don't recommend doing it now. [17]

Notice that Skinner is careful not to say that such factors as perception do not function as determinars in learning . He simply states, as any empiricist would, that their influence cannot be empirically understood at this time. The problem is, should these factors be ignored by educators?

## Who is Accountable?

Who is accountable? has now been examined in terms of who controls learning. In the Skinnerian view the responsibility

and therefore the accountability is with the one who control the variables of learning which lie outside the learner. In terms of this view of the learning process a student learns or not because of correct or faulty control of the external variables; the school, the principal, the teacher are primarily responsible. They succeed or fail because they collectively do or do not provide the proper system or methodology that would produce the correct stimulus and thus engender the correct response. In this matrix there are no significant variables within the learner worth considering in the learning process. In the cognitive-field theory of learning, however, responsibility or accountability is more difficult to assess because (1) all the variables in the learning situation are not under the control of the school and (2) learning is defined as an internal reorganization of thought rather than as a change of behavior, meaning that it is harder to assess when learning has occurred.

To reduce learning to a function of the environment for the sake of ease in listing "behavioral" objectives and for the sake of assigning responsibility for learning to the teacher may be to remove what is truly human from the learning situation. There are the non-cognitive variables in the teaching-learning act that affect the definition of learning as a reorganization of one's perceptual field rather than learning as a change in behavior. If educators ignore such factors in learning as perception, emotion, and feeling as Skinner

suggest we should, we may be removing from the school those factors which make man truly human.

## NOTES

[1]Theodore Anderson and Mildred Boyer, Bilingual Schooling in the United States (Austing: Southwest Educational Development Laboratory, 1970).

[2]Bruce Gearder, "Language Maintenance or Language Shift: The Prospect for Spanish in the United States." Presented at the Conference on Child Language, Conrad Hilton Hotel, Chicago, Illinois on November 22-24, 1971.

[3]William F. MacKey, "A Topology of Bilingual Education." Presented at the Research Conference on Bilingual Education Under the Auspices of the Bureau of Research of the U.S. Office of Education, Washington, D.C. - June 1969.

[4]Bilingual Education Act. Enacted January 2, 1968, P.L. 90-247, Title VII, Sec. 702, 81 Stat. 816.

[5]Manual for Project Applicants and Grantees, Programs Under the Bilingual Education Act (Title VII, ESEA), U.S. Department of Health, Education and Welfare; Office of Education, Bureau of Elementary and Secondary Education, Bilingual Education Programs Branch, April 20, 1971.

[6]Bernard Williams, "Rationalism," The Encyclopedia of Philosophy, Paul Edwards, Editor in Chief (New York: The Macmillan Company, 1967) p. 73.

[7]Ibid., p. 74.

[8]Carl G. Hempel, Philosophy of Natural Science (Englewood Cliffs: Prentice Hall, 1966) p. 101.

[9]Ibid.

[10]Williams, op. cit., p. 71.

[11]John F. Travers, Fundamentals of Educational Psychology (Scranton: International Textbook Company, 1970) p. 184.

[12]B. F. Skinner, Science and Human Behavior (New York: The Macmillan Company, 1953) p. 4.

[13]Ibid., p. 6.

[14]Ibid.

[15]Ibid., p. 7.

[16]Supra, p. 7.

[17]Richard I. Evans, B.F.Skinner, The Man and His Ideas (New York: E.P. Dutton, 1968) p. 14. This is a dialogue between Evans and Skinner. Skinner has just answered a question about how he reacts to other movements in psychology that do not rely on purely empirical methods to establish relationships between learning and the factors that influence learning.